

I CLAIM:

Sub 2
1. ~~An open top gravity flow liquid transport canal having therein an impermeable plastic liner providing at least one tab between the liner and the canal and means anchoring the liner to the canal including a series of fasteners extending through the tab having a head between the tab and the liner.~~

Sub 3
2. The canal of claim 1 wherein the canal includes a concrete liner.

3. The canal of claim 2 wherein a hole is drilled into the concrete liner and the fastener is driven into the hole.

4. The canal of claim 3 wherein the fastener is a fluted nail.

5. The canal of claim 3 wherein the fastener is a concrete screw.

Sub 3
6. ~~The canal of claim 1 wherein the canal has a length, a bottom and first and second side walls and a first tab extends along the length of the canal adjacent the bottom, a second tab extends along the length of the canal adjacent the first side wall and a third tab extends along the length of the canal adjacent a second side~~

Sub 23
wall and wherein the anchoring means comprises fasteners extending through each tab at spaced intervals along the length of the canal.

Sub 1
7. The canal of claim 6 wherein the tabs have a first end connected to the plastic liner and a second free end, the second free ends of the second and third tabs being above the first ends.

8. The canal of claim 1 wherein the plastic liner has a tear strength above 100 pounds force.

9. The canal of claim 8 wherein the plastic liner has a fiber mesh embedded therein.

10. The canal of claim 9 wherein the plastic liner is of a thermoplastic material sealable by heat and pressure.

11. The canal of claim 10 wherein the tab is of the same material as the liner.

12. The canal of claim 1 wherein the canal is earthen.

Sub
C4

~~13. The canal of claim 12 wherein the anchoring means includes an anchor extending into the earth and means connecting the fastener to the anchor.~~

14. The canal of claim 13 wherein the anchoring means includes a series of anchors extending into the earth in a path along a length of the canal, a member connected between adjacent anchors and fasteners extending through the tab and into the member at spaced intervals along the length of the canal.

Sub
C5

15. The canal of claim 1 wherein the canal is excavated from the earth.

16. The canal of claim 1 wherein the canal is in a dike elevated above the surrounding area.

Sub
C5

~~17. An open top gravity flow liquid transport canal having a wall, an impermeable, imperforate plastic liner having a first side juxtaposed to the wall and a second side exposed to liquid in the canal; and a series of fasteners on the first side of the liner connecting the liner to the canal wall.~~

Sub D1
18. The canal of claim 17 wherein the canal includes a concrete liner.

19. The canal of claim 17 wherein the canal is earthen.

Sub D6
20. ~~The method of lining an open top gravity flow liquid transport canal comprising~~

providing a plastic liner having at least one tab thereon on a first side of the liner;

placing the liner in the canal and placing the tab adjacent the canal; and

anchoring the liner to the canal including driving at least one fastener through the tab.

Sub D1
21. The method of claim 20 wherein the canal is concrete lined and the anchoring step comprises drilling a pilot hole into the concrete and then driving the fastener into the pilot hole.

22. The method of claim 20 wherein the plastic liner is rolled up in a width less than the width of the canal and

the placing step comprises unrolling the plastic liner in the canal and attaching a first tab to the bottom of the canal and then

Sub
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unfolding a section of the plastic liner and placing the section on a side of the canal and attaching a second tab to the side of the canal.

23. The method of claim 22 wherein the unrolling step including placing the first tab on a centerline of the canal bottom.

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